

Nomenclatural Notes on some Flowering Plants—II

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During general studies on Indian flora, particularly of Bhutan and Jowai areas in Assam, and also during his work at the Hartley Botanical Laboratories, University of Liverpool (U.K.) in 1966-67, the author noticed that names of many plants needed change if the rules in the International Code of Botanical Nomenclature (1966) were strictly applied. These notes mainly involve the rules of priority, invalid publication, later homonyms and also the recent altered taxonomic concepts of some genera.

BRASSICACEAE

Sisymbrium bhutanicum Balak. nom. nov. *S. lasiocarpum* Hook f. & Thoms. in J. Linn. Soc. 5 : 163, 1861 (non F. Muell. 1858) et in Hook. f. Fl. Brit. Ind. 1 : 148, 1872.

FLACOURTIACEAE

Taraktogenos macrocarpa (Bedd.) Balak. comb. nov. *Asteriastigma macrocarpa* Bedd. Fl. Sylv. 2: t. 266, 1872 et Ic. t. 242, 1874; Gamble, Fl. Pres. Madras 52, 1915. *Hydnocarpus macrocarpa* (Bedd.) Warb. in Engler & Prantl, Pflanzenfam. 3 (6a) : 21, 1893; Gilg in Engler, Pflanzenfam. 21 : 409, 1925.

MELIACEAE

Aglaia exstipulata (Griff.) Balak. comb. nov. *Euphora exstipulatis* Griff. Notul. 4 : 547, 1851. *A. polyantha* Bedd. Ic. Pl. Ind. Or. 1 : 44, 1874. *A. minutiflora* Bedd. l. c. t. 193, 1874; Hiern in Hook. f. Fl. Brit. Ind. 1 : 557, 1875.

Dysoxylum alliarum (Buch.-Ham.) Balak. comb. nov. *Guarea alliaria* Buch.-Ham. in Edinb. Mem. Wern. Soc. 6 : 305, 1832. *Hartighsea alliaria* (Buch.-Ham.) Voigt, Hort. Sub. calc. 136, 1845. *D. hamiltonii* Hiern in Hook. f. Fl. Brit. Ind. 1 : 548, 1875.

Dysoxylum gobara (Buch.-Ham.) Merr. in J. Arn. Arb. 23: 173, 1942, *Guarea gobara* Buch.-Ham. in Edinb. Mem. Wern. Soc. 6 : 306, 1832. *Hartighsea gobara* (Buch.-Ham.) Voigt, Hort. Sub. Calc. 136, 1845.

¹ Part I in J. Bombay nat. Hist. Soc. 63: 327-331, 1967.

Guarea disyphonia Griff. Notul. 4 : 503, 1851, *D. procerum* Hiern in Hook. f. Fl. Brit. Ind. 1 : 547, 1875.

RHAMNACEAE

Sageretia parviflora (Roem. & Schult.) G. Don, Gen. Syst. 2 : 29, 1832. *Rhamnus parviflorus* Roem. & Schult. Syst. 5 : 295, 1820. *Rhamnus filiformis* Roth, Nov. Sp. Pl. 153, 1821. *Sageretia oppositifolia* Brogn. in Ann. Nat. Sc. sér. 1, 10 : 360, 1827; Lawson in Hook. f. Fl. Brit. Ind. 1 : 641, 1875. *Sageretia filiformis* (Roth) G. Don, Gen. Syst. 2 : 29, 1832; Raizada in Indian For. 94 : 450, 1968.

Zizyphus mauritiana Lamk. var. *fruticosa* (Haines) Seb. & Balak. in Indian For. 89 : 525, 1963. *Z. jujuba* Lamk. var. *fruticosa* Haines, For. Fl. Chota Nagpur 270, 1910 et Bot. Bih. Oriss. 195, 1921. *Z. mauritiana* Lamk. var. *fruticosa* (Haines) Raizada & Saxena in Indian For. 92 : 326, 1966, *nom. illeg.*

ROSACEAE

Malus sikkimensis (Wenzig) Balak. comb. nov. *Sorbus sikkimensis* Wenzig in Linnaea 38 : 58, 1874. *Pyrus sikkimensis* Hook. f. Fl. Brit. Ind. 2 : 373, 1878.

As treated by Hutchinson (Gen. Fl. Pl. 1 : 210, 1964) *Malus* differs from *Pyrus* in styles being connate at base and fruits globose, without or with very few grit cells.

Rubus duthieanus Balak. *nom. nov.* *R. fasciculatus* Duthie in Ann. R. Bot. Gard. Calc. 9 : 39, 1901 (non P. J. Mueller, 1858).

Rubus duthieanus Balak. var. *tomentosus* (Cardot) Balak. comb. nov. *R. fasciculatus* Duthie var. *tomentosus* Cardot in Le Comte, Notul. Syst. 3 : 314, 1917.

Rubus glandulifer Balak. *nom. nov.* *R. lanatus* Hook. f. Fl. Brit. Ind. 2 : 331, 1878 (non Focke, 1867).

Rubus kumaonensis Balak. *nom. nov.* *R. reticulatus* Hook. f. Fl. Brit. Ind. 2 : 331, 1878 (non Kerner, 1870).

Rubus kurzii Balak. *nom. nov.* *R. ferox* Wall. ex Kurz. For. Fl. Brit. Burma 1 : 437, 1877; Hook. f. Fl. Brit. Ind. 2 : 329, 1878 (non Boenn. 1824).

Rubus nutantiflorus Hara in J. Jap. Bot. 40 : 327, 1965. *R. nutans* Wall. ex G. Don, Gen. Syst. 2 : 528, 1832 (non Vest 1824); Hook. f. Fl. Brit. Ind. 2 : 334, 1878.

Rubus nutantiflorus Hara var. *nepalensis* (Hook. f.) Balak. comb. nov. *R. nutans* G. Don var. *nepalensis* Hook. f. Fl. Brit. Ind. 2 : 334, 1878.

Sorbus bhutanica (W. W. Smith) Balak. comb. nov. *Pyrus bhutanica* W. W. Smith in Rec. Bot. Surv. Ind. 4 : 265, 1911.

Sorbus differs from *Pyrus* in corymbose or paniculate flowers and pinnate or 'pinnately lobed leaves, as treated by Hutchinson (Gen. Fl. Pl. 1 : 210, 1964).

Sorbus kachinensis (W. W. Smith) Balak. comb. nov. *Pyrus kachinensis* W. W. Smith in Rec. Bot. Surv. Ind. 6 : 100, 1914.

Sorbus monbeigii (Cardot) Balak. comb. nov. *Pyrus monbeigii* Cardot in Le Comte, Notul. Syst. 3 : 352, 1918.

Sorbus parvifolia (Blatter) Balak. comb. nov. *Pyrus parvifolia* Blatter in J. Indian Bot. Soc. 9 : 207, 1930.

SAXIFRAGACEAE

Saxifraga himalaica Balak. nom. nov. *S. micrantha* Edgew. in Trans. Linn. Soc. 20 : 50, 1846 (non Fisch. ex DC. 1830); Clarke in Hook. f. Fl. Brit. Ind. 2 : 394, 1878.

Saxifraga nigroglandulifer Balak. nom. nov. *S. nutans* Hook. f. & Thoms. in J. Linn. Soc. 2 : 69, 1857 (non D. Don 1822; nec Adams 1834); Clarke in Hook. f. Fl. Brit. Ind. 2 : 393, 1878.

CRASSULACEAE

Sedum hookeri Balak. nom. nov. *S. elongatum* Hook. f. & Thoms. in J. Linn. Soc. 2 : 98, 1858 (non Ledebour 1834); Clarke in Hook. f. Fl. Brit. Ind. 2 : 419, 1878.

MELASTOMACEAE

Sonerila amabilis Kurz in J. As. Soc. Beng. 40 (2) : 53, 1871. *S. kurzii* Clarke in Hook. f. Fl. Brit. Ind. 2 : 539, 1879.

Sonerila trianae Balak. nom. nov. *S. amabilis* Triana (in Trans. Linn. Soc. 28 : 76, 1871, nom. nud.) ex Clarke in Hook. f. Fl. Brit. Ind. 2 : 533, 1879 (non Kurz 1871).

S. amabilis Kurz (1871) is the earlier name for *S. kurzii* described by C. B. Clarke in 1879 and hence treated here as the correct name. Clarke's binomial *S. amabilis* published in 1879 is not legitimate being a later homonym of *S. amabilis* Kurz (1871) and hence a new name *S. trianae* is proposed here.

ARALIACEAE

Euaraliopsis Hutch. Gen. Fl. Pl. 2 : 80, 1967. *Araliopsis* Kurz, Andaman Rep. App. 39, 1870, nom. nud. *Brassaiopsis* Clarke in Hook. f. Fl. Brit. Ind. 2 : 735, 1879, p.p. (non Decne & Planch. 1854).

Hutchinson (1967) separated this genus from *Brassaiopsis* sensu Clarke (1879) on the basis that the leaves of *Euaraliopsis* are digitately lobed or partite and not compound as in *Brassaiopsis* Decne & Planch. The following species also belong to this genus:—

Euaraliopsis alpina (Clarke) Balak. comb. nov. *Brassaiopsis alpina* Clarke in Hook. f. Fl. Brit. Ind. 2 : 736, 1879.

Euaraliopsis griffithii (Clarke) Balak. comb. nov. *Brassaiopsis griffithii* Clarke in Hook. f. Fl. Brit. Ind. 2 : 736, 1879.

Euaraliopsis mitis (Clarke) Balak. comb. nov. *Brassaiopsis mitis* Clarke in Hook. f. Fl. Brit. Ind. 2 : 736, 1879.

Euaraliopsis polyacantha (Wall.) Balak. comb. nov. *Hedera polyacantha* Wall. Pl. As. Rar. 2 : t. 190, 1831. *Panax palmatum* Roxb. (Hort. Beng. 21, 1814, nom. nud.) et Fl. Ind. ed. 2, 2 : 74, 1832. *Araliopsis andamanica* Kurz in Andaman Rep. App. 39, 1870. *Brassaiopsis palmata* (Roxb.) Kurz in J. As. Soc. Beng. 39 (2) : 77, 1870; Clarke in Hook. f. Fl. Brit. Ind. 2 : 735, 1879. *Euaraliopsis palmata* (Roxb.) Hutch. Gen. Fl. Pl. 2 : 80, 1967.

This is the correct name for the lectotype species of this genus and not *E. palmata* (Roxb.) Hutch.

Euaraliopsis simplicifolia (Clarke) Balak. comb. nov. *Brassaiopsis simplicifolia* Clarke in Hook. f. Fl. Brit. Ind. 2 : 735, 1879.

Schefflera seemanii Balak. nom. nov. *Agalma glaucum* Seem. in J. Bot. 4 : 25, 1866 (non *S. glaucum* Harms, 1894). *Heptapleurum glaucum* (Seem.) Clarke in Hook. f. Fl. Brit. Ind. 2 : 728, 1879 (non Kurz 1877).

ASTERACEAE

Saussurea pterocaulon Decne in Jacquem. Voy. Bot. 95, t. 103, 1844. *Aplotaxis candolleana* DC. Prodr. 6 : 541, 1837. *Jurinea adenocarpa* Ledeb. Fl. Ross. 2 : 765, 1846. *S. candolleana* (DC.) Hook. f. Fl. Brit. Ind. 3 : 372, 1881 (non Clarke 1876).

J. D. Hooker made the combination *S. candolleana* based on *Aplotaxis candolleana* DC., the earliest name for this species. However,

in 1876, C. B. Clarke had already described a species under the name *S. candolleana* and hence Hooker's name is a later homonym and not legitimate. The next in priority is *Saussurea pterocaulon* Decne, which is the correct name for this species.

Saussurea candolleana Clarke, Comp. Ind. 230, 1876 (non Hook. f. 1881). *S. clarkei* Hook. f. Fl. Brit. Ind. 3 : 372, 1881.

J. D. Hooker (1881) described the species *S. clarkei* which happens to be synonymous to the earliest published name, *S. candolleana* Clarke, the latter being treated here as the correct name.

Saussurea conica Clarke, Comp. Ind. 224, 1876. *S. uniflora* Wall. ex Hook. f. Fl. Brit. Ind. 3 : 366, 1881 (non Clarke 1876). *S. uniflora* var. *conica* (Clarke) Hook. f. l. c.

Saussurea conica Clarke var. *conica*, *S. uniflora* Hook. f. var. *conica* (Clarke) Hook. f. Fl. Brit. Ind. 3 : 366, 1881.

Saussurea conica Clarke var. *uniflora* Balak. nom. nov. *S. uniflora* Wall. ex Hook. f. Fl. Brit. Ind. 3 : 366, 1881, excl. var. *conica* (non Clarke 1876).

S. uniflora Hook. f. (1881) is a later homonym and hence not legitimate. *S. uniflora* Clarke (1876) is an entirely different species. However, *S. conica* Clarke is an earlier synonym of *S. uniflora* Hook. f. and treated by J. D. Hooker as a variety of his species and here treated as the correct name of *S. uniflora* Hook. f.

Saussurea edgeworthii Kitamura in Acta Phytotax. Geobot. 24:4, 1969. *Aplotaxis foliosa* Edgew. in Trans. Linn. Soc. 20 : 77, 1846. *S. foliosa* (Edgew.) Hook. f. Fl. Brit. Ind. 3 : 373, 1881 (non Ledeb. 1829).

Senecio bombayensis Balak. nom. nov. *Doronicum reticulatum* Wight, Calc. J. nat. Hist. 7 : 156, 1847. *S. reticulatus* (Wight) Clarke, Comp. Ind. 199, 1876 (non DC. 1837). *S. grahamii* Hook. f. Fl. Brit. Ind. 3 : 347, 1881 (non Benth. 1857).

Senecio bhutanicus Balak. nom. nov. *Prenanthes quinqueloba* DC. Prodr. 6 : 404, 1838. *S. quinquelobus* (DC.) Hook. f. & Thoms. in Clarke, Comp. Ind. 209, 1876 (non DC. 1837); Hook. f. Fl. Brit. Ind. 3 : 353, 1881.

Senecio connatus Balak. nom. nov. *Ligularia arnicoides* DC. Prodr. 6 : 314, 1837. *S. arnicoides* (DC.) Clarke, Comp. Ind. 207, 1876 (non Hook. & Arn. 1841); Hook. f. Fl. Brit. Ind. 3 : 351, 1881.

Senecio flexuosus Balak. nom. nov. *S. calthaeifolius* Hook. f. Fl. Brit. Ind. 3 : 350, 1881 (non Maximov 1871).

Senecio kashmirianus Balak. nom. nov. *S. pedunculatus* Edgew. in Trans. Linn. Soc. 21 : 74, 1846 (non Sch.-Bip. 1844); Hook f. Fl. Brit. Ind. 3 : 342, 1881.

Senecio khasianus Balak. nom. nov. *S. obtusatus* DC. Prodr. 6 : 367, 1838 (non Pursh. 1814); Hook. f. Fl. Brit. Ind. 3 : 340, 1881.

Senecio multiceps Balak. nom. nov. *Doronicum arnottii* DC. in Wight, Contr. Bot. 23, 1834; DC. Prodr. 6 : 322, 1838 (non *S. arnottii* Hook. f. 1844). *Madaractis polycephala* DC. Prodr. 6 : 440, 1838. *S. polycephalus* (DC.) Clarke, Comp. Ind. 197, 1876 (non Ledeb. 1830); Hook. f. Fl. Brit. Ind. 3 : 344, 1881.

Senecio stylosus Balak. nom. nov. *Gynura walkeri* Wight, Ic. Pl. Ind. Or. t. 1122, 1846. *S. walkeri* (Wight) Thwaites, Enum. Pl. Zeyl. 167, 1860 (non Arnott 1836). *Notonia walkeri* (Wight) Clarke, Comp. Ind. 176, 1876; Hook. f. Fl. Brit. Ind. 3 : 337, 1881.

Jacobsen (Handb. Sukkulent Pflanzen. 2: 1026, 1954) reduced *Notonia* to *Senecio* on the basis that the succulent nature is common to both genera and that the ovate style tips of *Notonia* as compared to the truncate nature in *Senecio* can hardly be relied upon for generic distinction.

Vernonia ceylanica Balak. nom. nov. *V. scariosa* Arn. in Nov. Act. Nat. Cur. 18 : 346, 1836 (non Poiret 1808); Hook. f. Fl. Brit. Ind. 3 : 236, 1881. *Decaneuron scariosum* DC. Prodr. 7 : 264, 1838. *Centratherum scariosum* Clarke, Comp. Ind. 4, 1876.

PRIMULACEAE

Androsace dubyii (Dergnac) Balak. comb. nov. *A. primuloides* Duby in DC. Prodr. 8 : 51, 1844 (non Moench. 1802; nec D. Don. 1825); Pax & Knuth in Engler, Pflanzenr. 22 : 183, 1905. *A. sarmentosa* var. *primuloides* (Duby) Hook. f. in Curtis, Bot. Mag. t. 6210, 1876 et in Fl. Brit. Ind. 3 : 498, 1882. *A. sarmentosa* var. *dubyii* Dergnac in Kneucker, Allg. bot. Zeitsch. 10 : 110, 1904.

Lysimachia knuthiana Balak. nom. nov. *L. glandulosa* Knuth in Engler, Pflanzenr. 22 : 264, 1905 (non Edgew. 1846).

Lysimachia muelleri Balak. nom. nov. *L. salicifolia* F. v. Muell. ex Benth. Fl. Austral. 4 : 269, 1868 (non Miller 1772); Pax & Knuth in Engler, Pflanzenr. 22 : 305, 1905.

Primula asperulata Balak. nom. nov. *P. incisa* Franch. in Bull. Soc. Bot. France 33 : 69, 1886 (non Lamk. 1778); Pax & Knuth, l.c. 66.

Primula flaccida Balak. nom. nov. *P. nutans* Delavay ex Franch. Bull. Soc. Bot. France 33: 69, 1886 (non Georgi 1797); Pax & Knuth, l.c. 94.

Primula klattii Balak. nom. nov. *P. uniflora* Klatt in Linnæa 37: 500, 1872 (non Gmelin 1805); Hook. f. Fl. Brit. Ind. 3: 492, 1882.

Primula roxburghii Balak. nom. nov. *P. rotundifolia* Roxb. Fl. Ind. ed. 2, 2: 18, 1824 (non Pallas 1776); Hook. f. Fl. Brit. Ind. 3: 483, 1882.

Primula rugosa Balak. nom. nov. *Carolinella obovata* Hemsl. in Hook. Icon. Pl. t. 2775, 1903. *P. obovata* (Hemsl.) Pax in Engler, Pflanzenr. 24: 47, 1905 (non Duby 1844; nec Huter 1873).

BORAGINACEAE

Paracaryum uncinatum (Benth.) Balak. comb. nov. *Cynoglossum uncinatum* Benth. in Royle, Illus. 305, 1836. *C. laxum* G. Don, Gen. Syst. 4: 356, 1838. *C. roylei* Wall. ex DC. Prodr. 10: 155, 1846. *Echinoglossum glochidiatum* DC. Prodr. 10: 136, 1846. *Paracaryum glochidiatum* (DC.) Benth. in Benth. & Hook. f. Gen. Pl. 2: 850, 1876; Clarke in Hook. f. Fl. Brit. Ind. 4: 161, 1883.

ACANTHACEAE

Eranthemum L. Sp. Pl. 9, 1753. *Daedalacanthus* T. Anders. in Thw. Enum. Pl. Zeyl. 229, 1864; Clarke in Hook. f. Fl. Brit. Ind. 4: 417, 1884.

Daedalacanthus T. Anders. is strictly synonymous to *Eranthemum* L. as the type species of the former, *D. montanum* T. Anders. is synonymous to the type species of the latter, *E. capense* L.

Eranthemum burmanicum Balak. nom. nov. *Daedalacanthus parishii* Clarke in Hook. f. Fl. Brit. Ind. 4: 421, 1884 (non *E. parishii* Clarke 1884).

Eranthemum macrostachys (T. Anders.) Balak. comb. nov. *Daedalacanthus macrostachys* T. Anders. in J. Linn. Soc. 9: 488, 1867; Clarke in Hook. f. Fl. Brit. Ind. 4: 420, 1884.

Eranthemum pulchellum Andr. Bot. Repos. 2: t. 88, 1800 (non Roxb. 1832). *Justicia nervosa* Vahl, Enum. 1: 164, 1804. *E. nervosum* (Vahl) R. Br. Prodr. 1: 477, 1810; Santapau in Univ. Bombay, Bot. Mem. 2: 35, 1952. *Daedalacanthus nervosus* (Vahl) T. Anders. in J. Linn. Soc. 9: 487, 1867; Clarke in Hook. f. Fl. Brit. Ind. 4: 418, 1884.

Eranthemum wardii (W. W. Smith) Balak. comb. nov. *Daedalacanthus wardii* W. W. Smith in notes R. Bot. Gard. Edinh. 10: 174, 1918.

Synnema Benth. in DC. Prodr. 10: 538, 1846. *Cardanthera* Buch.-Ham. (ex Voigt, Hort. Sub. Calc. 482, 1845, nom. nud.) ex Nees in DC. Prodr. 11: 67, 1847; Clarke in Hook. f. Fl. Brit. Ind. 4: 403, 1884. *Adenosma* Wall. Pl. As. Rar. 3: 75, 1832 (non R. Br. 1810).

The generic name *Cardanthera* taken by Voigt from a manuscript name of Buchanan-Hamilton was not validly published by Voigt in 1845 as such his note does not fulfil any of the conditions set by article 41 of the Code. The genus was validated only in 1847 by Nees von Esenbeck. However, by this time *Cardanthera* Buch.-Ham. ex Nees became antedated by *Synnema* Benth. (1846) and the latter name should be adopted as the correct name.

Recently Raizada (in Indian For. 94: 451, 1968) published notes on this change in generic name. It seems necessary to point out that some of the species names listed by him are in neuter gender, while others are in feminine gender. *Synnema* is a Greek compound word (*syn*: with, together; *-nema*: thread) in the neuter gender and Bentham (1846) attributed the same gender to his genus, as obvious from the ending of the specific epithet of the type species, *S. avanum*. According to article 23, the specific epithet when adjectival in form and not used as substantive should agree grammatically with the generic name. Hence all adjectival specific epithets belonging to *Synnema* should be in neuter gender, ending in *-um*. It may also be pointed out that Greek adjectives used as specific epithets show a disconcerting array of nominative endings and hence it is usual practice to give them the Latin endings,—*a* (f.), —*us* (m.) and *um*—(n.).

The following are the correct names of Indian species of *Synnema*:

Synnema anomalum (Blatter) Raizada in Indian For. 94: 451, 1968. *Cardanthera anomala* Blatter in J. As. Soc. Beng. 26: 350, 1930.

Cardanthera anomala Blatter described from Bombay differs from all species of *Synnema* in having only one fertile stamen with one staminode and just 10—12 seeds supported on curved retinacula, whereas *Synnema* is characterised by 4 fertile stamens and many seeds on straight retinacula. The type specimens, *Hallberg* 9766 and 9767 were collected from Vihar Lake, Salsette Island and Tardeo in Bombay. Santapau (Univ. Bombay, Bot. Mem. 2: 14, 1951) states that none of these specimens are present in Blatter Herbarium. As authentic material of this species is not available, it is not possible to decide now, whether it belongs to *Synnema* or another genus.

Synnema balsamicum (L. f.) O. Ktze in Rev. Gen. Pl. 2: 500, 1891. *Ruellia balsamica* L. f. Suppl. 289, 1781. *Adenosma balsamea* Spreng. Syst. 2: 829, 1825. *Cardanthera balsamica* (L. f.) Clarke in Hook. f. Fl. Brit. Ind. 4: 404, 1884. *S. barbiger* O. Ktze, l.c. 500; Raizada, l.c. 451.

Synnema balsamicum (L. f.) O. Ktze var. **thymus** (Nees) Balak. comb. nov. *Adenosma thymus* Nees in Wall. Pl. As. Rar. 3: 79, 1832. *Cardanthera balsamica* (L. f.) Benth. var. *thymus* (Nees) Clarke in Hook. f. Fl. Brit. Ind. 4: 404, 1884.

Synnema biplicatum (Nees) Imlay in Kew Bull. 1939: 111, 1939. *Adenosma biplicata* Nees in Wall. Pl. As. Rar. 3: 79, 1832, *Pedicularis avana* Wall. ex Benth. Scroph. Ind. 52, 1835. *Synnema avanum* Benth. in DC. Prodr. 10: 538, 1846; Raizada, l.c. 451. *Cardanthera avana* Benth. ex Clarke in Hook. f. Fl. Brit. Ind. 4: 405, 1884. *Synnema avanum* Benth. var. *biplicatum* (Nees) O. Ktze, Rev. Gen. Pl. 2: 500, 1891.

Synnema griffithii (T. Anders.) O. Ktze, Rev. Gen. Pl. 2: 500, 1891. *Adenosma griffithii* T. Anders in J. Linn. Soc. 11: 454, 1870. *Cardanthera griffithii* Clarke in Hook. f. Fl. Brit. Ind. 4: 404, 1884.

Synnema pinnatifidum (Dalz.) O. Ktze, Rev. Gen. Pl. 2: 500, 1891. *Nomaphila pinnatifida* Dalz. in Kew J. Bot. 3: 38, 1851. *Adenosma pinnatifidum* (Dalz.) T. Anders. in J. Linn. Soc. 9: 455, 1867. *Cardanthera pinnatifida* (Dalz.) Clarke in Hook. f. Fl. Brit. Ind. 4: 405, 1884.

Synnema triflorum (Roxb.) O. Ktze, Rev. Gen. Pl. 2: 500, 1891. *Ruellia triflora* Roxb. (Hort. Beng. 46, 1814, n.n.) Fl. Ind. 3: 52, 1832. *Adenosma triflora* Nees in Wall. Pl. As. Rar. 3: 79, 1832. *Cardanthera triflora* (Roxb.) Clarke in Hook. f. Fl. Brit. Ind. 4: 405, 1884.

The combination, *Cardanthera difformis* (L. f.) Druce in Rep. Bot. Exch. Cl. Brit. Isles 1916, Suppl. 2: 612, 1917 based on *Ruellia difformis* L. f., made for this species is not correct as it is not a *Synnema* at all. The description and the synonym, 'Nir—Schulli' Rheede (Hort. Malab. 2: 89, t. 46, 1679) given by Linnaeus f. indicate this to be *Hygrophila erecta* (Burm. f.) Hochr. and not *Synnema triflorum*.

Synnema uliginosum (L. f.) O. Ktze, Rev. Gen. Pl. 2: 500, 1891. *Ruellia uliginosa* L. f. Suppl. 290, 1781. *Adenosma uliginosa* (L. f.) R. Br. in Verm. Schrift. 3: 298 1867. *Cardanthera uliginosa* Clarke in Hook. f. Fl. Brit. Ind. 4: 403, 1884.

Synnema verticillatum (Nees) O. Ktze, Rev. Gen. Pl. 2: 500, 1891. *Adenosma verticillata* Nees in Wall. Pl. As. Rar. 3: 79, 1832. *Cardanthera verticillata* (Nees) Clarke in Hook. f. Fl. Brit. Ind. 4: 404, 1884.

NEPENTHACEAE

Nepenthes chapmannii Balak. nom. nov. *N. zeylanica* Chapm. in Ceylon J. Sci. Sect. A, Bot. 12: 221, 1947 (non Rafinesque 1836).

ORCHIDACEAE

Bulbophyllum devangiriensis Balak. nom. nov. *B. uniflorum* Griff. Notul. 3. 293, 1851 (non Hassk. 1844); Hook f. Fl. Brit. Ind. 5: 755, 1890. *Sarcopodium uniflorum* (Griff.) Lindl. Fol. Orch. 16, 1853.

Bulbophyllum guttulatum (Hook. f.) Balak. comb. nov. *Cirrhopetalum guttulatum* Hook. f. Fl. Brit. Ind. 5: 776, 1890. *Bulbophyllum umbellatum* Lindl. in Edw. Bot. Reg. 30: t. 44, 1844 (non Lindley 1830).

Chiloschista Lindl. Fischer (in Gamble, Fl. Pres. Madras 1440, 1928) gives the spelling of this genus as *Chilochista*, but the original spelling given by Lindley is *Chiloschista*.

Additional knowledge on the morphology of the genus *Sarcochilus* (*sensu* Hook. f. Fl. Brit. Ind. 6: 33, 1890) indicates this genus to be heterogeneous composed of at least four distinct genera, *Chiloschista*, *Micropera*, *Thrixspermum* and *Sarcochilus* (*sensu stricto*). Most recent authors including Pfitzer (in Engler & Prantl, Pflanzenfam. 2(6): 216, 1889), J. J. Smith (in Fl. Buitenz. 6: 533, 1905 et in Fedde, Repert. 32: 350, 1933) and Santapau & Kapadia (Orch. Bombay 209, 1966) have accepted and followed this division.

Chiloschista minimifolia (Hook. f.) Balak. comb. nov. *Sarcochilus minimifolius* Hook. f. Fl. Brit. Ind. 6: 37, 1890.

Dendrobium perpusillum Balak. nom. nov. *D. pumilum* Roxb. Fl. Ind. 3: 479, 1832 (non Swartz 1805); Hook. f. Fl. Brit. Ind. 5: 713, 1890.

Dendrobium wightii Balak. nom. nov. *D. graminifolium* Wight, Ic. Pl. Ind. Or. t. 1649, 1851 (non Willd. 1805); Hook. f. Fl. Brit. Ind. 5: 718, 1890.

Eulophia dabia (D. Don) Balak. comb. nov. *Bletia dabia* D. Don, Prodr. Fl. Nep. 30, 1825. *Limodorum ramentaceum* Roxb. Fl. Ind. 3: 467, 1832. *E. campestris* Lindl. Gen. Sp. Orch. 185, 1833; Hook. f. Fl. Brit. Ind. 6: 4, 1890. *E. ramentacea* (Roxb.) Lindl. Gen. Sp. Orch. 185, 1833.

Micropera rostratum (Roxb.) Balak. comb. nov. *Aerides rostratum* Roxb. Fl. Ind. 3: 474, 1832. *Camarotis purpurea* Lindl. Gen. Sp. Orch. 219, 1833. *Sarcochilus purpureus* (Lindl.) Benth. ex Hook. f. Fl. Brit. Ind. 6: 36, 1890.

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